

# Mid-Term Paper

(Total Score: 20 points)

Due March 28, 2009

Choose a modern particle physics experiment.

1. Give an overview of the physics goals of the experiment
2. Discuss the detector subsystems. This should include at least
  1. One charged particle tracking detector
  2. Calorimeter
  3. Scintillation or Cerenkov detector

Show calculations of some quantitative information in each case. Comment on precisions of measurements.  
Suggest alternative detection techniques.